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EXAMINER

VIG, NARESH

ART UNIT	PAPER NUMBER
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3629

DATE MAILED: 04/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/275,514

Applicant(s)

HOLLIMAN ET AL.

Examiner

Naresh Vig

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This is in reference to response received on 14 March 2005 to the office action mailed on 09 September 2004. There are 32 claims 1 – 32 pending for examination.

Response to Arguments

In response to applicant's argument that Hsu uses modem and describes modem as a V.34 modem or ISDN line. However, Hsu teaches using "telephone modems, cable modems, and digital satellite broadcasting, in order to determine the most efficient delivery of different types of data through all of the available bandwidth connections [Hsu, abstract].

Applicant's other arguments with respect to claims 1- 32 have been responded to in response to the claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 – 16 and 19 – 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lewis et al. US patent 6,385,388 hereinafter known as Lewis in view of Hsu US Patent 6,195,692 and further in view of DirecTV, Inc. hereinafter known as DirecTV.

Regarding claim 1, Lewis teaches:

selecting a set of segments of content from a group of segments to be protected wherein the set does not include all segments of the group [Fig. 8a].

protecting the segments of the set, but not the other segments of the group, to prevent the protected segments from being properly reproduced unless the protection is undone with assistance of a correct key (i.e. password) that is not generally available and is based at least in part on the associated identifier (it is a design choice to select the password requirements to secure the system from Hacking) [Fig. 11].

Lewis does not teach system and method of providing content to a receiving device having an associated identifier associated with a network address for the receiving device (internet on-demand system). However, Hsu teaches system and

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method of providing content to a receiving device having an associated identifier associated with a network address (e.g. host name or web address which is associated with a network address like ip address) for the receiving device (i. e. internet on-demand system). Hsu teaches providing access to the group of segments over a network.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Lewis as taught by Hsu provide digital content to users over the network to have implement a video-on-demand (VOD) services.

Lewis in view of Hsu does not teach protected segments from being properly reproduced unless the protection is undone with assistance of a correct key that is not generally available and is based at least in part on the associated identifier. However, DirecTV teaches system and method for protected segments from being properly reproduced unless the protection is undone with assistance of a correct key that is not generally available and is based at least in part on the associated identifier (users can view information provided by DirecTV after the user activates the access card received from DirecTV [DirecTV page 15]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Lewis in view of Hsu as taught by DirecTV to control the access of the content by registered access box.

Regarding claim 3 Lewis teaches:

selecting a set of segments of content from a group of segments to be protected (it is a design choice to elect that a sub-set cannot include the complete set).

protecting the segments of the set, but not the other segments of the group to prevent the protected segments from being properly reproduced;

selecting the set involves selecting at least some of the set for visual scrambling and protecting the set includes visual scrambling those segments selected for visual scrambling

Lewis does not teach system and method providing access to the group of segments over a network (internet on-demand system). However, Hsu teaches system and method of providing content to a receiving device having an associated identifier associated with a network address (e.g. host name or web address which is associated with a network address like ip address) for the receiving device (i. e. internet on-demand system). Hsu teaches providing access to the group of segments over a network.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Lewis as taught by Hsu provide digital content to users over the network to have implement a video-on-demand (VOD) services.

Lewis in view of Hsu does not teach protected segments from being properly reproduced unless the protection is undone with assistance of a correct key that is not generally available and is based at least in part on the associated identifier. However, DirecTV teaches system and method for protected segments from being properly reproduced unless the protection is undone with assistance of a correct key that is not generally available and is based at least in part on the associated identifier (users can view information provided by DirecTV after the user activates the access card received from DirecTV [DirecTV page 15].

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Lewis in view of Hsu as taught by DirecTV to control the access of the content by registered access box.

Lewis in view of Hsu and DirecTV teaches visual scrambling involves using a key, including a remote computer number (what contents to use to generate a key is a design choice).

Regarding claim 12, Lewis teaches:

undoing the protection if the correct key (password) is received [Fig. 12];

playing the group of segments seamlessly with a media player [Fig. 12];

Lewis does not teach accessing over a network a group of segments of content including a set of segments that does not include all segments of the group, and wherein the set, but not the other segments of the group, have been protected to prevent the protected segments from being properly reproduced without undoing the protection with assistance of a correct key that is not generally available and is based at least in part on the associated identifier (digital information which is protected and can be reproduced with proper unlocking mechanism). However, Lewis teaches digital information can be unlocked for access with the unlocking mechanism (e.g. password). Hsu teaches system and method of providing digital information over a network.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Lewis as taught by Hsu provide digital content to users over the network to have implement a video-on-demand (VOD) services.

Lewis in view of Hsu does not teach protected segments from being properly reproduced unless the protection is undone with assistance of a correct key that is not generally available and is based at least in part on the associated identifier. However, DirecTV teaches system and method for protected segments from being properly reproduced unless the protection is undone with assistance of a correct key that is not generally available and is based at least in part on the associated identifier (users can view information provided by DirecTV after the user activates the access card received from DirecTV [DirecTV page 15]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Lewis in view of Hsu as taught by DirecTV to control the access of the content by registered access box.

Regarding claim 19, Lewis teaches:

storage to hold at least content divided into segments (DVD);

a user interface (gets password from user) [Fig. 12]; and

circuitry and software cooperating with the user interface to select a set of the segments to be protected from a group of segments, wherein the set does not include all segments of the group, and to protect the set of segments, but not the other segments of the group [col. 1, lines 46 – 54], prevent the protected segments from being properly reproduced unless the protection is undone with assistance of a correct key that is not generally available, wherein the correct key is based at least in part on the associated identifier [Fig. 12].

Lewis does not teach access of content over a network, an identifier associated with a network address for a receiving device. However, Hsu teaches system and method of providing content to a receiving device having an associated identifier associated with a network address (e.g. host name or web address which is associated with a network address like ip address) for the receiving device (i. e. internet on-demand system). Hsu teaches providing access to the group of segments over a network.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Lewis as taught by Hsu provide digital content to users over the network to have implement a video-on-demand (VOD) services.

Lewis in view of Hsu does not teach protected segments from being properly reproduced unless the protection is undone with assistance of a correct key that is not generally available and is based at least in part on the associated identifier. However, DirecTV teaches system and method for protected segments from being properly reproduced unless the protection is undone with assistance of a correct key that is not generally available and is based at least in part on the associated identifier (users can view information provided by DirecTV after the user activates the access card received from DirecTV [DirecTV page 15]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Lewis in view of Hsu as taught by DirecTV to control the access of the content by registered access box.

Regarding claim 26, Lewis teaches:

a machine readable media including instructions that when executed cause a content providing system to select a set of segments of content from a group of segments to be protected wherein the set does not include all segments of the group (Lewis teaches data information can be segmented for providing protected access information) [Fig. 8b, Fig. 1];

protect the segments of the set with, but not the other segments of the group, to prevent the protected segments from being properly reproduced unless the protection is undone with assistance of a correct key that is not generally available, wherein the correct key is based at least in part on an identifier [Fig. 8b, Fig. 12].

Lewis does not teach to provide access to the group of segments over a network, and a network address for a receiving device. However, Hsu teaches system and method of providing content to a receiving device having an associated identifier associated with a network address (e.g. host name or web address which is associated with a network address like ip address) for the receiving device (i. e. internet on-demand system). Hsu teaches providing access to the group of segments over a network.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Lewis as taught by Hsu to create and provide digital content to users over the network to have implement a video-on-demand (VOD) services.

Lewis in view of Hsu does not teach protected segments from being properly reproduced unless the protection is undone with assistance of a correct key that is not generally available and is based at least in part on the associated identifier. However,

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DirecTV teaches system and method for protected segments from being properly reproduced unless the protection is undone with assistance of a correct key that is not generally available and is based at least in part on the associated identifier (users can view information provided by DirecTV after the user activates the access card received from DirecTV [DirecTV page 15]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Lewis in view of Hsu as taught by DirecTV to control the access of the content by registered access box.

Regarding claim 28, Lewis teaches:

a machine readable media including instructions that when executed cause a content providing system to access a group of segments of content including a set of segments that does not include all segments of the group [Fig. 8b], and wherein the set, but not the other segments of the group, have been protected to prevent the protected segments from being properly reproduced without undoing the protection with assistance of a correct key that is not generally available, wherein the correct key is based at least-in-part on an identifier associated with a network address (user preference to decide on the value of key) for a receiving device for the content [Fig. 8b, Fig. 11];

undo the protection if the correct key is received [Fig. 8b];

play the group of segments seamlessly with a media player [Fig. 12].

Lewis does not teach access over a network . However Hsu teaches to provide access of digital information over a network.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Lewis as taught by Hsu to create and provide digital content to users over the network to have implement a video-on-demand (VOD) services.

Lewis in view of Hsu does not teach protected segments from being properly reproduced unless the protection is undone with assistance of a correct key that is not generally available and is based at least in part on the associated identifier. However, DirecTV teaches system and method for protected segments from being properly reproduced unless the protection is undone with assistance of a correct key that is not generally available and is based at least in part on the associated identifier (users can view information provided by DirecTV after the user activates the access card received from DirecTV [DirecTV page 15]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Lewis in view of Hsu as taught by DirecTV to control the access of the content by registered access box.

Lewis in view of Hsu does not teach protected segments from being properly reproduced unless the protection is undone with assistance of a correct key that is not generally available and is based at least in part on the associated identifier. However, DirecTV teaches system and method for protected segments from being properly reproduced unless the protection is undone with assistance of a correct key that is not

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generally available and is based at least in part on the associated identifier (users can view information provided by DirecTV after the user activates the access card received from DirecTV [DirecTV page 15]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Lewis in view of Hsu as taught by DirecTV to control the access of the content by registered access box.

Regarding claim 30, Lewis teaches providing content to at least one receiving device. Lewis teaches;

selecting a set of segments of content from a group of segments to be protected wherein the set does not include all segments of the group [Fig. 8b];

protecting the segments of the set, but not the other segments, through visual scrambling determined based at least in part on the associated identifier [Fig. 8b, Fig. 12]; and

Lewis does not teach providing access to the group of segments (digital information) over a network, and having an associated identifier associated with a network address for a receiving device. However, Hsu teaches to provide access to digital information over a computer network. However, Hsu teaches system and method of providing content to a receiving device having an associated identifier associated with a network address (e.g. host name or web address which is associated with a network address like ip address) for the receiving device (i. e. internet on-demand system). Hsu teaches providing access to the group of segments over a network.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Lewis as taught by Hsu provide digital content to users over the network to have implement a video-on-demand (VOD) services.

Regarding claims 2 and 13, Lewis teaches to descrambling the scrambled data. Official notice it taken that it would have been obvious to one of ordinary skill in the art at the time the invention was made that it is a business choice to select what part of data stream need to be scrambled to prevent unintended use of the data.

Therefore, it would have been obvious one of ordinary skill in the art at the time the invention was made that data Lewis teaches selecting the set involves selecting at least some of the set for visual scrambling and protecting the set includes visual scrambling those segments selected for visual scrambling to minimize revenue loss due unauthorized use of program content, provide parental-control of the information for the users etc.

Regarding claim 5, Lewis teaches selecting the set involves designating those segments to be protected [Fig. 8].

Regarding claims 6, 14, 21, 22, Lewis does not teach selecting the set involves selecting at least some of the set for bit encryption and protecting the set includes bit encrypting those segments selected for bit encryption. However, Lewis teaches

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selecting at least some of the set for protection, and, digital information can be encrypted [col. 4, line 4].

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made that Lewis teaches that digital information can be encrypted to prevent unauthorized access.

Regarding claim 9, Lewis teaches prior to protection, the segments include video signals.

Regarding claim 10, Lewis does not teaches video signals are in an MPEG format. However, Hsu teaches video signals are in MPEG format.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Lewis as taught by Hsu to digitize the video signal for access over a data network.

Regarding claim 11, Lewis teaches protection of both the video and audio [col. 1, line 9].

Regarding claim 16, Lewis teaches identifying protected segments is contained in headers [col. 1, lines 46 – 54].

Regarding claim 24, Lewis teaches content includes video signals.

Regarding claim 25, Lewis teaches content includes video signals and audio signals [col. 1, line 9].

Regarding claim 31, Lewis does not teach receiving device comprises a network information browser configured to display the provided content. However, Hsu teaches network information browser configured to display the provided content provided over the internet [col. 2, lines 38 – 41].

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Lewis as taught by Hsu and display provided content over a browser to allow user to view the digital content over a computer system.

Regarding claims 4, 15, 20, 27, 29, 32, Lewis in view of Hsu does not teach remote computer number is a processor number (i.e. hard coded number for a device). However, DirecTV teaches that its access card contains a microprocessor [page 19]. Lewis in view Hsu and DirecTV does not teach the device number same as processor number. Official notice it taken that it would have been obvious to one of ordinary skill in the art at the time the invention was made that it is a business choice to decide how they would want to assign serial numbers to their products. A business may elect to program their own identifiers (e.g. serial numbers), or, may elect to use some other means like serial number of the motherboard etc.

Therefore, a business may elect to use the processor manufacturer's serial numbers assigned to the processor as their identification number to ensure that the identification number assigned the device is a unique number.

Regarding claims 7, 23, Lewis in view of Hsu does not teach selecting the set involves selecting at least some of the set for visual scrambling and at least some of the set for bit encryption, wherein some of the set may be selected for both visual scrambling and bit encryption, and protecting the set includes visual scrambling those segments selected for visual scrambling and bit encrypting those segments selected for bit encryption. However, Lewis teaches selection of set for protection and encryption of digital information (responded to earlier in response to claims 5 and 6). Official notice it taken that it would have been obvious to one of ordinary skill in the art at the time the invention was made that it is a business choice to select what security measures to implement to prevent digital information from unauthorized use. DirecTV teaches to provide security and encryption information allowing customers to control the use of DSS and enabling DirecTV to capture billing information [page 19].

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made that Lewis teaches selection of subsets and modify Lewis in view of Hsu as taught by DirecTV for encryption of digital information to prevent the unauthorized access of the digital information.

Regarding claim 8, Lewis in view of Hsu does not teach remote computer number is stored and matched against a remote computer number from a remote receiving computer during playback (hard coded authentication mechanism). However, Lewis teaches to use passwords for authentication [Fig. 10]. DirecTV discloses to authenticate users. DirecTV discloses to restrict access to content by providing an access card, which acts as a "license plate" to provide security and encryption information allowing customers to control the use of DSS and enabling DirecTV to capture billing information [page 19]. DirecTV discloses to associate users with access card [page 15]. Official notice it taken that it would have been obvious to one of ordinary skill in the art at the time the invention was made that DirecTV authenticates access cards to enable customers to view program contents.

Therefore, it would have been obvious to a person with ordinary skill in the art to modify Lewis in view of Hsu as taught by DirecTV and use hard coded authentication mechanism to limit the access to digital information at the designated playback equipment.

Claims 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lewis et al. US patent 6,385,388 hereinafter known as Lewis in view of Hsu US Patent 6,195,692 and further in view of DirecTV, Inc. hereinafter known as DirecTV, an

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article Ratings, Filters, and Censorship by Gary D. Robson hereinafter known as Robson.

Regarding claim 17, Lewis in view of Hsu does not teach identifying protected segments is contained in at least one watermark. Applicant recites "Invisible watermarking techniques are methods for inserting information into media data without creating visible distortion". Robson teaches V-chip information is carried in previously-unused area of closed-captioning signal (digital information control information is transmitted in a separate channel without visibly distorting the information, i.e. watermarking).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Lewis in view of Hsu as taught by Robson to control the access of digital information. For example, converting R Rated movie to a PG rated movie as taught by Robson.

Regarding claim 18, Lewis in view of Hsu does not teach identifying protected segments is contained in data transmitted separately from the segments. However, Robson teaches protected segments is contained in data transmitted separately from the segments (unused area of closed-captioning).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Lewis in view of Hsu as taught by Robson to

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control the access of digital information. For example, converting R Rated movie to a PG rated movie as taught by Robson.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Applicant is required under 37 CFR '1.111 (c) to consider the references fully when responding to this office action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Naresh Vig whose telephone number is 703.305.3372. The examiner can normally be reached on M-F 7:30 - 5:00 (Alt Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Weiss can be reached on 703.308.2702. The fax phone numbers for the organization where this application or proceeding is assigned are 703.305.7687 for regular communications and 703.305.7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703.305.3900.

A handwritten signature in black ink, appearing to read 'Naresh Vig', with a stylized flourish at the end.

Naresh Vig
Patent Examiner
March 28, 2005